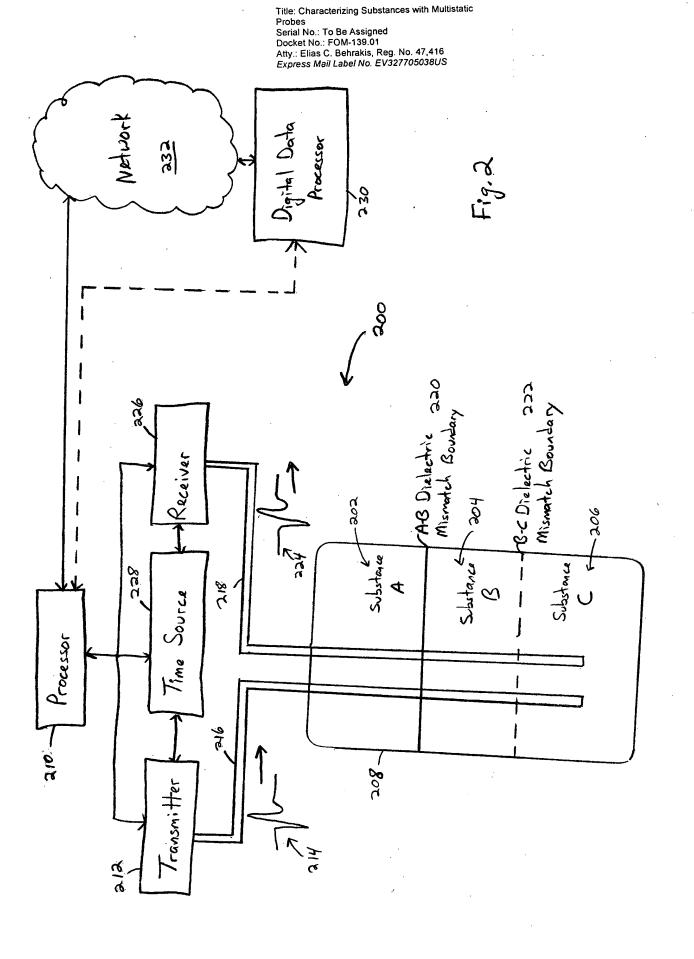
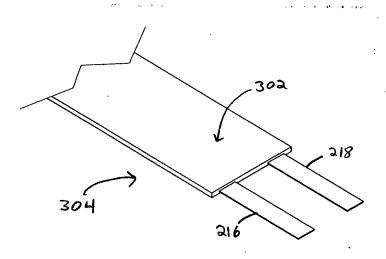


FIG. 1





F16.3

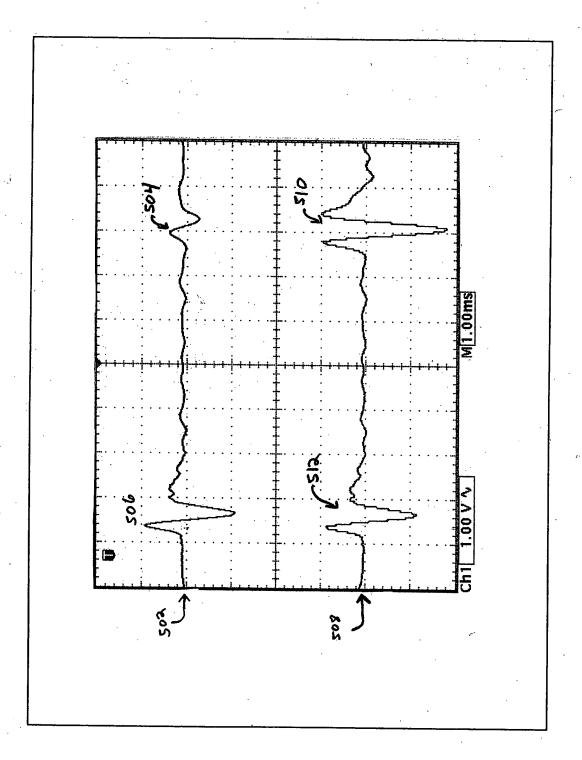
Title: Characterizing Substances with Multistatic Probes

Serial No.: To Be Assigned Docket No.: FOM-139.01

Atty.: Elias C. Behrakis, Reg. No. 47,416 Express Mail Label No. EV327705038US

Repetitively Transmit an Electromagnetic 402 Signal on a First Conductive Element Continuously Sample a Received Signal Based on the Transmitted Signal 404 406 Amplify and Filter Sampled Signal Evaluate Attributes of Filtered Signal 408 Relative to Transmitted Signal to Ascertain Substance Characteristics Transmit Signal Attributes and/or Substance Characteristics to an 410 Interested Entity

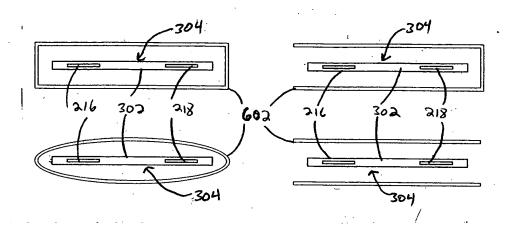
FIG. 4



Title: Characterizing Substances with Multistatic Probes
Serial No.: To Be Assigned
Docket No.: FOM-139.01
Atty.: Elias C. Behrakis, Reg. No. 47,416
Express Mail Label No. EV327705038US 202 602 Substance Dielectric Misnatch Boundary 220 208 Shortone B K 602 204 Dielectric Mismatch Boundary

FIG. 6A

206



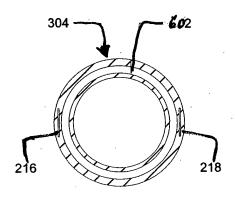


FIG.6B

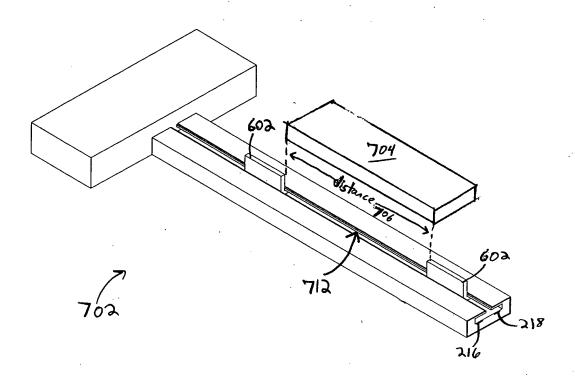


FIG. 7A

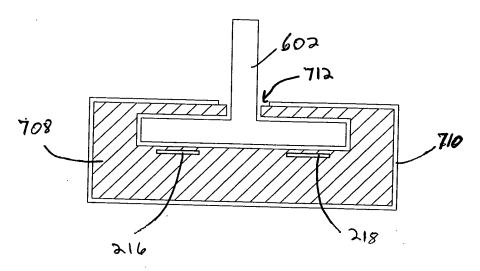


FIG. 7B